

Amendments to the Claims

Please cancel claims 106, 107, 112, 116, and 117 without prejudice.

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned application.

Listing of Claims:

1-49. (Canceled)

50. (Currently amended): A method for forming a sensor array configured to detect multiple analytes in a fluid, comprising:

forming a plurality of sensing elements having a predetermined shape, wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor is at least partially encapsulated within the polymeric body, and wherein a first portion of the sensing elements are configured to produce a signal in the presence of a first analyte and wherein a second portion of the sensing elements are configured to produce a signal in the presence of the second analyte, and wherein the first and second portions of the sensing elements have predetermined shapes, and wherein the shape of the first portion of the sensing elements is different from the shape of the second portion of the sensing elements;

placing the sensing elements in a liquid composition; and

curing the liquid composition to form a supporting member, wherein the sensing elements are at least partially embedded within the cured liquid composition, and wherein the sensing elements are disposed on or at an exterior surface of the cured liquid composition.

51-75. (Canceled)

76. (Currently amended): A method of sensing multiple analytes in a fluid comprising:

providing a sensor array comprising a plurality of sensing elements at least partially embedded within a supporting member comprising a cured liquid composition, wherein each of the sensing elements comprises a receptor coupled to a polymeric body, and wherein the receptor is at least partially encapsulated within the polymeric body, and wherein the sensing elements are disposed on or at an exterior surface of the cured liquid composition, and wherein a first portion of the sensing elements are configured to produce a signal in the presence of a first analyte and wherein a second portion of the sensing elements are configured to produce a signal in the presence of a second analyte, and wherein the first and second portions of the sensing elements have predetermined shapes, and wherein the shape of the first portion of the sensing elements is different from the shape of the second portion of the sensing elements;

passing a fluid over the sensor array;

monitoring a spectroscopic change of the sensing elements as the fluid is passed over the sensor array, wherein the spectroscopic change is caused by the interaction of the analyte with the sensing element; and

determining the shape of the sensing elements that undergo a spectroscopic change.

77-97. (Canceled)

98. (Previously presented): The method of claim 50, wherein forming a sensing element comprises polymerizing a monomer composition.

99. (Previously presented): The method of claim 50, wherein placing the sensing element in a

liquid composition comprises placing the sensing elements at the surface of the liquid composition.

100. (Previously presented): The method of claim 50, wherein the sensing element comprises a polymer.
101. (Previously presented): The method of claim 50, wherein the sensing element comprises a polyethylene glycol hydrogel.
102. (Currently amended): The method of claim 50, ~~wherein forming the sensing element comprises coupling a receptor to a polymeric body, and~~ wherein the receptor is configured to produce a signal when the sensing element interacts with the analyte during use.
103. (Currently amended): The method of claim 50, ~~wherein forming the sensing element comprises coupling a receptor to a polymeric body, and~~ wherein the polymeric body comprises a non-spherical shape.
104. (Currently amended): The method of claim 50, ~~wherein forming the sensing element comprises coupling a receptor to a polymeric body, and~~ wherein the polymeric body comprises a polyethylene glycol polymer.
105. (Currently amended): The method of claim 50, ~~wherein forming the sensing element comprises coupling a receptor to a polymeric body, and~~ wherein the polymeric body comprises a polyethylene glycol diacrylate.
106. (Canceled)
107. (Canceled)
108. (Currently amended): The method of claim 50, ~~wherein forming the sensing element~~

~~comprises coupling a receptor to a polymeric body, and wherein the receptor comprises a nucleic acid.~~

109. (Previously presented): The method of claim 76, wherein the sensing element comprises a polymer.
110. (Previously presented): The method of claim 76, wherein the sensing element comprises a polyethylene glycol hydrogel.
111. (Currently amended): The method of claim 76, ~~wherein the sensing element comprises a receptor, and wherein the receptor is configured to produce a signal when the sensing element interacts with the analyte during use.~~
112. (Canceled)
113. (Currently amended): The method of claim 76, ~~wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a non-spherical shape.~~
114. (Currently amended): The method of claim 76, ~~wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol polymer.~~
115. (Currently amended): The method of claim 76, ~~wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol diacrylate.~~
116. (Canceled)
117. (Canceled)

118. (Previously presented): The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the receptor comprises a nucleic acid.
119. (New): The method of claim 50, wherein forming a plurality of sensing elements having a predetermined shape comprises: forming a mixture of a receptor in a monomer composition, and curing the mixture into a predetermined shape.
120. (New): The method of claim 76, wherein the plurality of sensing elements having a predetermined shape are formed by the method comprising: forming a mixture of a receptor in a monomer composition, and curing the mixture into a predetermined shape.